Title (en)

A BI-STABLE HINGE UNIT OF ELASTIC MATERIAL

Publication

EP 0331940 A3 19910417 (EN)

Application

EP 89102701 A 19890216

Priority

GB 8805380 A 19880307

Abstract (en)

[origin: EP0331940A2] A bi-stable hinge unit (10) of elastic material connects two inflexible end portions (12, 13) to take up two stable positions on either side of an intermediate unstable position. The hinge unit (10) comprises two equal elements (14, 15), each of which having two cantilever arms (18, 20), linked to each other by two folding lines (22) acting as a "living" hinge. A triangular rigid plate (16) is arranged between and defined by said folding lines (22). The elements (14, 15) are arranged substantially parallel to each other with a distance therebetween and forming the main hinge line between said end portions (12, 13). By swinging said end portions (12, 13) toward each other along said main hinge line, the four cantilever arms (18, 20) will start to deflect and act as springs and the two triangular plates (16) will rotate through approximately 180 DEG in a plane normal to the elements (14, 15).

IPC 1-7

F16C 11/12

IPC 8 full level

A45C 11/00 (2006.01); **A45C 13/00** (2006.01); **A45C 13/34** (2006.01); **B65D 47/08** (2006.01); **E05D 1/02** (2006.01); **F16C 11/12** (2006.01)

CPC (source: EP US)

A45C 11/00 (2013.01 - EP US); **A45C 13/005** (2013.01 - EP US); **A45C 13/34** (2013.01 - EP US); **B65D 47/0809** (2013.01 - EP US); **F16C 11/12** (2013.01 - EP US)

Citation (search report)

- [A] US RE30861 E 19820209
- [AD] EP 0056469 B1 19850619
- [A] EP 0167661 A1 19860115 - ZELLER PLASTIK KOEHN GRAEBNER [DE]

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